DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

A21WE Revision 5 FAIRCHILD C-119C C-119G

February 10, 2003

TYPE CERTIFICATE DATA SHEET NO. A21WE

This data sheet which is a part of type certificate No. A21WE prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder Aero Union Corporation

100 Lockheed Avenue Chico, California 95973

I - MODEL C-119C (RESTRICTED CATEGORY) Approved March 11, 1970

Engine 2 - Pratt & Whitney R4360-20 WD

Fuel 115/145 Minimum Grade Aviation Gasoline

Engine limits 2700 rpm (3500 hp) Take-off (5 minutes) (Rich Setting)

2550 rpm (2650 hp) Sea Level (Rich Setting) 2550 rpm (2355 hp) 10,000 ft. Alt. (Rich Setting) 2550 rpm (2100 hp) 14,000 ft. Alt. (Rich Setting) 2550 rpm (2145 hp) 20,000 ft. Alt. (Rich Setting)

Propeller Hamilton Standard 24260-611 or 619

Blades 2J17Y3-26R or 2J17AE3-26R

Airspeed limits Vne - Never exceed 225 mph (195 knots)

Vc - Structural Cruising 203 mph (176 knots)

Va - Maneuver 187 mph (162 knots) Flaps or gear extended 161 mph (140 knots)

Max speed aerial delivery Doors Open 150 mph (130 knots)

C.G. range Aft of datum +318.3" to +335.2" at all Wts.

Datum Fus. Sta. 0 (103.8" forward of jig point fitting on front jack pad)

Max. gross wt. (Aft 71,500 lb. (take-off) and 69,970 lb. (landing) Cargo Doors On)

See NOTE 1(a).

Max. zero fuel wt. 62,724 lb. (Outer wing tanks to be full before fuel is added to inner wing tanks)

Leveling means Eye bolt at cabin ceiling station 310 for plumb bob suspension to crosslined plates under

cargo floor between stations 310 and 333.

No. seats Limited to the Flight Crew & number of persons essential to perform the intended

function of this operation. Cargo Handlers - must wear safety harnesses that are secured

to aircraft structure during all drop operations.

Page No.	1	2	3	4
Rev. No.	5	-	4	-

A21WE Page 2 of 4

I - MODEL C-119C (RESTRICTED CATEGORY) (cont'd)

Fuel capacity 3624 Gal. total - 2 outboard fuel tanks 855 Gal.

each (+354.5) - 2 inboard fuel tanks 457 Gal. each (+354.5) - 2 auxiliary fuel tanks in fuselage

500 Gal. each (+338.0).

Oil capacity 120 gal. total - 2 nacelle A/C Serial No. Applicable

tanks 60 gal. each (+461.3)

48-319 thru 51-2584

120 gal. total - 2 nacelle

tanks 60 gal. each (+338.4) 51-2587 and subsequent

Cargo capacity See T.O. 1C-119B-5 Section III

Control surface movements	Aileron	Up	24° <u>+</u> 1°	Down	12° <u>+</u> 1°
(See Sec. VIII T.O.	Flettner Tab	Up	17° <u>+</u> 4° -2°	Down	$30^{\circ} + 6^{\circ} - 2^{\circ}$
1C-119C-2-1,	Trim Tab	Up	15° ± 1 1/2°	*Down	15° ± 1 1/2°
Page 8-4)	4) Elevator		24 1/2° ± 1 1/2°	Down	20 1/2° ± 1 1/2°
	Spring Tab	Up	17° ± 0° -5°	Down	$24^{\circ} + 2^{\circ} - 0^{\circ}$
	Trim Tab	Up	12° <u>+</u> 2°	Down	22° <u>+</u> 2°
	Rudder	Right	$25^{\circ} + 2^{\circ} - 0^{\circ}$	Left	$20^{\circ} + 2^{\circ} - 0^{\circ}$
	Spring Tab	Right	5° + 1°	Left	5° + 1°
	Trim Tab	Right	10 1/2° <u>+</u> 1°	Left	10 1/2° <u>+</u> 1°
	Wing Flaps		Take-off	Down	15°
			Landing	Down	40°

^{*48-319} thru 50-161, Aileron Tab Spec. on 50-162 and subsequent is Down $12^{\circ} \pm 1 \ 1/2^{\circ}$.

Serial Nos. eligible 48-319 thru 48-355

49-101 thru 49-199 50-119 thru 50-171 51-2532 thru 51-2584 51-2587 thru 51-2661 51-8233 thru 51-8273

II - MODEL C-119G (RESTRICTED CATEGORY) Approved September 29, 1971

Engine 2 - Wright R-3550-89, -89A

Fuel 115/145 Minimum Grade Aviation Gasoline

Engine limits 2900 rpm (3500 hp) Take-off (5 minutes) Low Blower

2600 rpm (2600 hp) Sea Level (Low Blower) 2600 rpm (2400 hp) 10,000 ft. Alt. (High Blower) 2600 rpm (2400 hp) 14,000 ft. Alt. (High Blower) 2400 rpm (1780 hp) 20,000 ft. Alt. (High Blower)

Propeller Aeroproducts A6441FN-C2

Airspeed limits Vne - Never exceed 225 mph (195 knots)

Vc - Structural Cruising 203 mph (176 knots) Va - Maneuver 187 mph (162 knots)

Va - Maneuver 187 mph (162 knots) Flaps or gear extended 161 mph (140 knots)

Max speed aerial delivery Doors Open 150 mph (130 knots)

C.G. range Aft of datum +318.3" to +335.2" at all Wts.

Datum Fus. Sta. 0 (103.8" forward of jig point fitting on front jack pad)

Page 3 of 4 A21WE

II - MODEL C-119G (RESTRICTED CATEGORY) (cont'd)

Max. gross wt. (Aft 71,500 lb. (take-off) and 69,970 lb. (landing) Cargo Doors On)

See NOTE 1(b).

Max. zero fuel wt. 61,240 lb. (Outer wing tanks to be full before fuel is added to inner wing tanks)

Leveling means Eye bolt at cabin ceiling station 310 for plumb bob suspension to crosslined plates under

cargo floor between stations 310 and 333.

No. seats Limited to the Flight Crew & number of persons essential to perform the intended

function of this operation. Cargo Handlers - must wear safety harnesses that are secured

to aircraft structure during all drop operations.

Fuel capacity 3624 Gal. total - 2 outboard fuel tanks 855 Gal.

each (+354.5) - 2 inboard fuel tanks 457 Gal. each (+354.5) - 2 auxiliary fuel tanks in fuselage

500 Gal. each (+338.0).

Oil capacity <u>Applicable Serial No.</u>

120 gal. total - 2 nacelle tanks 60 gal. each (+338.4) 51-2662 thru 51-8030 51-8098 thru 51-6168 51-17365 thru 51-17367 52-6000 thru 52-6003 53-8069 thru 53-8132

109 Gal. total - 2 nacelle 51-8031 thru 51-8097 tanks 54.5 gal. each (+338.4) 52-5840 thru 52-5954 (Applies to aircraft with 52-6004 thru 52-7884 Manufacturer's Serial No's. listed 53-8133 thru 53-8156

below)

Cargo capacity See T.O. 1C-119G-1 Section V.

Control surface movements Aileron
(See Sec. VIII T.O. Flettner T

1C-119C-2-1, Page 8-4)

Aileron	Up	24° <u>+</u> 1°	Down	12° <u>+</u> 1°
Flettner Tab	Up	17° ± 4° -2°	Down	30° + 6° -2°
Trim Tab	Up	15° ± 1 1/2°	Down	12° <u>+</u> 1 1/2°
Elevator	Up	24 1/2° <u>+</u> 1 1/2°	Down	20 1/2° ± 1 1/2°
Spring Tab	Up	17° ± 0° -5°	Down	$24^{\circ} + 2^{\circ} - 0^{\circ}$
Trim Tab	Up	12° <u>+</u> 2°	Down	22° <u>+</u> 2°
Rudder	Right	$25^{\circ} + 2^{\circ} - 0^{\circ}$	Left	$20^{\circ} + 2^{\circ} - 0^{\circ}$
Spring Tab	Right	5° + 1°	Left	5° + 1°
Trim Tab	Right	10 1/2° <u>+</u> 1°	Left	10 1/2° <u>+</u> 1°
Wing Flaps		Take-off	Down	15°
		Landing	Down	40°

Serial Nos. eligible <u>Air Force Serial No's.</u> <u>Manufacturer's Serial No's.</u>

51-2662 thru 51-8168
51-17365 thru 51-17367
52-6000 thru 52-7884
52-5840 thru 52-5954
53-8069 thru 53-8156

10735-10738
10735-10738
10735-10776
10823-10825
10859-10861
10879-10908

10942-10945 10954-10957 10992-10994 A21WE Page 4 of 4

SPECIFICATIONS PERTINENT TO ALL MODELS (EXCEPT WHERE NOTED)

Certification basis FAR 21.25(a)(2) effective 1 February 1965

Application for Type Certificate dated 21 March 1968.

Production basis None.

Prior to original certification of each aircraft, an FAA representative must perform an inspection for workmanship, materials, and conformity with the approved technical data.

Equipment The basic required equipment as prescribed in the applicable Airworthiness Regulations

(see Certification Basis) must be installed in the aircraft for certification.

For the C-119C, an FAA Approved Airplane Flight Manual Supplement dated July 19, 1974 is required in addition to the operating limitations specified in Sec. V of T.O. 1C-119C-1.

For the C-119G, an FAA Approved Airplane Flight Manual Supplement

dated <u>29 September 1971</u> is required in addition to the operating limitations specified in Sec. V of T.O. 1C-119G-1.

NOTE 1. (a) Current weight and balance report and loading instructions for Model C-119C aircraft must agree with data on pages 16 thru 31 of Sec. III, T.O. 1C-119B-5.

(b) Instructions for Model C-119G aircraft must agree with Sec. V of T.O. 1C-119G-1.

NOTE 2. (a) This approval applies to:

- Basic Air Force Airplane with no modification other than the internal floor rollers per Aero Union Corporation Dwg. No's. 7000 & 7001 and
- (2) Airplane certificated for special purpose of forest and wildlife conservation, with following limitations:
 - a. Aft cargo door must be "ON" aircraft.
- (b) In addition to the operating limitations in this data sheet, area, economic, passenger and other appropriate operating limitations in accordance with FAR 21.25 shall be shown on placards or listing accessible to the pilot.
- (c) The following placards must be displayed in front of and in clear view of the pilot:
 - (1) "This airplane must be operated as a restricted category airplane in compliance with the operating limitations stated in the form of placards, markings, and manuals."
- (d) Red radial line required on airspeed indicator at 195 Kts. (225 mph).

.....END.....